Notice of Allowability	Application No.	Applicant(s)	
	09/898,369	VAN SLYKE ET AL.	
	Examiner	Art Unit	
	Michael Cleveland	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *3/11/2004*.

2. ☒ The allowed claim(s) is/are *11-36*.

3. ☒ The drawings filed on *11 March 2004* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Raymond Owens on 5/21/04.

The application has been amended as follows:

IN THE SPECIFICATION:

On p. 11, line 11, --now U.S. Patent 6,565,996,-- has been added after "2001,".

On p. 11, line 21, --now abandoned,-- has been added after "2000,".

On p. 14, line 14, --now U.S. Patent 6,237,529,-- has been added after "2000,".

On p. 14, line 18, --now abandoned,-- has been added after "2001,".

On p. 14, line 25, --now U.S. Patent 6,558,735,-- has been added after "2001,".

On p. 14, line 29, --now U.S. Patent 6,513,451,-- has been added after "2001,".

On p. 15, line 23, --now abandoned,-- has been added after "2001,".

IN THE CLAIMS:

Claims 11, 19, 25, 32, 15, 23, and 28 have been amended as follows:

11. (currently amended) A method of handling sublimable organic material adaptable for making an organic layer on a structure which will form part of an organic light-emitting device, comprising the steps of:

a) providing the sublimable organic material in a powder form;

b) providing a thermally conductive [inorganic] material in a powder form;

c) forming a mixture of selected portions of the sublimable organic material powder and the thermally conductive [inorganic] material powder;

d) placing such mixture into a die and applying sufficient pressure to the mixture in the die to cause the mixture of powders to agglomerate into a solid pellet;

e) removing the pellet from the die and placing the pellet in a vacuum chamber; and

f) applying heat to the pellet in the vacuum chamber to sublime the organic material but not the thermally conductive material to form the layer on the structure.

19. (currently amended) A method of making an organic layer from an organic material on a structure which will form part of an organic light-emitting device, comprising the steps of:

a) providing a sublimable organic material in a powder form;

b) providing a thermally conductive [inorganic] material in a powder form;

c) forming a mixture of selected portions of the sublimable organic material powder and the thermally conductive [inorganic] material powder;

d) placing such mixture into a die and applying sufficient pressure to the mixture in the die to cause the mixture of powders to agglomerate into a solid pellet;

e) removing the pellet from the die;

f) placing the pellet into a thermal physical vapor deposition source disposed in a chamber;

g) positioning the structure in the chamber and in a spaced relationship with respect to the source;

h) evacuating the chamber to a reduced pressure; and

i) applying heat to the source to cause a portion of the pellet to sublime to provide a vapor of the organic material but not the thermally conductive material from which the organic layer is made on the structure.

25. (currently amended) A method of handling sublimable organic material adaptable for making an organic layer on a structure which will form part of an organic light-emitting device, comprising the steps of:

a) providing at least one sublimable organic host material in a powder form;

b) providing at least one sublimable organic dopant material in a powder form and as a selected weight fraction of the organic host material;

c) forming a first mixture of the at least one organic host material and the at least one organic dopant material;

d) providing a thermally conductive and non-sublimable [inorganic] material in a powder form;

e) forming a second mixture of selected portions of the first mixture and the thermally conductive [inorganic] material powder;

f) placing such second mixture into a die and applying sufficient pressure to the second mixture in the die to cause the second mixture of powders to agglomerate into a solid pellet; and

g) removing the pellet from the die[;].

32. (currently amended) A method of making an organic layer from an organic material on a structure which will form part of an organic light-emitting device, comprising the steps of:

a) providing at least one sublimable organic host material in a powder form;

b) providing at least one sublimable organic dopant material in a powder form and as a selected weight fraction of the organic host material;

c) forming a first mixture of the at least one organic host material and the at least one organic dopant material;

d) providing a thermally conductive [inorganic] material in a powder form;

e) forming a second mixture of selected portions of the first mixture and the thermally conductive [inorganic] material powder;

f) placing such second mixture into a die and applying sufficient pressure to the second mixture in the die to cause the second mixture of powders to agglomerate into a solid pellet;

g) removing the pellet from the die;

h) placing the pellet into a thermal physical vapor deposition source disposed in a chamber;

i) positioning the structure in the chamber and in a spaced relationship with respect to the source;

j) evacuating the chamber to a reduced pressure; and

k) applying heat to the source to cause a portion of the pellet to sublime to provide a vapor of the first mixture of organic materials but not the thermally conductive material from which the organic layer is made on the structure.

In claim 15, line 4, "inorganic" has been deleted.

In claim 23, line 4, "inorganic" has been deleted.

In claim 28, line 4, "inorganic" has been deleted.

2. The following is an examiner's statement of reasons for allowance:

The terminal disclaimer filed on 3/11/2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S Patent 6,649,436 has been reviewed and is accepted. The terminal disclaimer has been recorded. Accordingly, the obviousness-type double patenting rejections have been withdrawn.

In the prior action, the Examiner rejected claims containing the term "non-sublimable" under 35 USC 112, 2nd paragraph, as unclear because at least some of the disclosed and claimed "non-sublimable" species (e.g., carbon and metals) are sublimable under certain conditions. However, the specification is sufficiently clear to reasonably indicate to one of ordinary skill in the art that the term is used to contrast the volatility of materials which do not sublime at the temperatures used to sublime the organic materials of the present invention with that of the sublimable organic materials. Independent claims 11, 19, and 32 have been amended to explicitly recite the feature that the vaporization process sublimes the organic material(s) but not the thermally conductive "non-sublimable" material. No evaporation process is explicitly claimed in independent claim 25, and so there does not appear to be any expression that is both clearer than "non-sublimable" and clearly supported by the specification. Therefore, in accordance with MPEP 2173.02, which states that "[s]ome latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire", the term "non-sublimable" has been interpreted in light of the specification as meaning incapable of being sublimed at process temperatures used to sublime the sublimable organic materials.

The prior art does not fairly teach or suggest pelletizing a mixture of a sublimable organic material and a thermally conductive material and using it as a physical vapor deposition (sublimation) source for a layer of an organic light-emitting device wherein the thermally conductive material is not sublimed during the vapor deposition process, as claimed in independent claims 11, 19, and 32. Also, the prior art does not fairly teach or suggest the

pelletizing a mixture of a sublimable organic material, a sublimable organic dopant, and a "non-sublimable" (see discussion above) conductive material, wherein the organic material is appropriate to form part of an organic light-emitting device, as claimed by independent claim 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Tuesday-Friday and alternate Mon, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Cleveland
Patent Examiner
May 24, 2004